08963656 Results

Antibody SEQ ID NO: 2

Result	0	Query	T amamb	D.D.	TD	Description
No.	Score	Macch	Length		10	Description
1	355	100.0	355	19	AAW51744	Human C-C chemokin
2	308	86.8	355	17	AAW03376	CC-chemokine recep
3	308	86.8	355	18	AAW10100	Human C-C chemokin
4	228	64.2	355	17	AAW03377	CC-chemokine recep
5	228	64.2	355	18	AAW31850	Human eosinophil e
6	228	64.2	355	18	AAW27124	Human chemokine re
7	228	64.2	355	19	AAW51745	Human C-C chemokin
8	228	64.2	355	22	AAG80109	Human CCR3 protein
9	228	64.2	356	18	AAW25943	Human CCKR3 chemok
10	190	53.5	355	22	ABB56341	Non-endogenous hum
11	134	37.7	355	17	AAW03378	CC-chemokine recep
12	134	37.7	355	19	AAW51746	Human C-C chemokin
13	41	11.5	295	22	AAG80106	Human CCR1 protein
14	41	11.5	355	15	AAR52749	C-C chemokine rece
15	41	11.5	355	18	AAW26588	Human MIP-1 alpha/
16	41	11.5	355	18	AAW25751	Human MIP-1alpha/R
17	41	11.5	355	21	AAB20571	Human CC-chemokine

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RESULT 15
AAW26588
ID
     AAW26588 standard; Protein; 355 AA.
\mathbf{X}\mathbf{X}
AC
     AAW26588;
XX
\mathtt{DT}
     21-JAN-1998 (first entry)
\mathbf{x}\mathbf{x}
DΕ
     Human MIP-1 alpha/RANTES receptor.
XX
KW
     Macrophage inflammatory protein-1 alpha; MIP-1 alpha;
KW
     reduced upon activation normal T expressed and secreted; RANTES;
KW
     receptor; cytokine; antiinflammatory; inflammation; human.
XX
os
     Homo sapiens.
XX
PN
     US5652133-A.
\mathbf{x}\mathbf{x}
PD
     29-JUL-1997.
xx
PF
                     93US-0012988.
     28-JAN-1993;
xx
PR
     28-JAN-1993;
                    93US-0012988.
XX
PΑ
     (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
ΡI
     Murphy PM;
XX
DR
     WPI; 1997-392945/36.
     N-PSDB; AAT90384.
DR
xx
PΤ
     MIP-1-alpha and RANTES receptor nucleic acid - used to develop
PT
     products for the detection of these cytokine(s) and their receptors,
PT
     particularly in inflammatory processes
XX
PS
     Claim 2; Column 15-18; 12pp; English.
XX
CC
     This polypeptide comprises a claimed receptor for human macrophage
CC
     inflammatory protein-1 alpha (MIP-1 alpha) and regulated upon
     activation normal T expressed and secreted (RANTES) protein. Also
CC
CC
     claimed are: a nucleic acid (see AAT90384) that encodes the receptor;
     a subsequence of the nucleic acid, having at least 12 contiguous
```

```
CC
    nucleotides; a cell transformed or transfected with the nucleic
    acid; and purified MIP-1 alpha/RANTES receptor polypeptide. The
    products can be used for detecting the MIP-1 alpha/RANTES receptor
CC
CC
    and polymorphisms in physiological samples. In addition, the
    receptor can be expressed and used to assay for MIP-la/RANTES in
CC
CC
    biological samples. The quantitation of MIP-1 alpha/RANTES is
CC
    useful for monitoring the levels of these cytokines in a patient.
CC
    Such measurements are useful in following the antiinflammatory
CC
    effects of drugs and prospective usefulness of new antiinflammatory
CC
XX
so
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                        11.5%; Score 41; DB 18; Length 355;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1.4e-31;
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          41; Conservative
                             0; Mismatches
                                                             0: Gaps
     115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155
Οv
         Db
     115 tglyseiffiilltidrylaivhavfalrartvtfgvitsi 155
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용
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                        355 4 US-08-575-967A-4
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    2
          228 64.2
                        355 4 US-08-847-296B-1
                                                            Sequence 1, Appli
                        355 4 US-09-045-583-54
355 1 US-08-012-988A-2
    3
          228
               64.2
                                                            Sequence 54, Appl
               11.5
    4
           41
                                                            Sequence 2, Appli
           41
               11.5
                        355 1 US-08-450-393A-5
                                                            Sequence 5, Appli
                        355 4 US-08-446-669-5
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                11.5
                                                            Sequence 5, Appli
    7
           41
                11.5
                        355 4 US-09-045-583-53
                                                            Sequence 53, Appl
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                        355 4 US-09-239-938-1
    8
           41
                                                            Sequence 1, Appli
    9
           41
                11.5
                        355 5 PCT-US95-00476-5
                                                            Sequence 5, Appli
                         31 1 US-08-450-393A-14
31 4 US-08-446-669-14
   10
           31
                 8.7
                                                            Sequence 14, Appl
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           31
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                                                            Sequence 14, Appl
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           31
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   13
           22
                         31 1 US-08-450-393A-13
                 6.2
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RESULT 15
PCT-US95-00476-13
; Sequence 13, Application PC/TUS9500476
  GENERAL INFORMATION:
     APPLICANT: The Regents of the University of California
     TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT
     TITLE OF INVENTION: PROTEIN RECEPTORS
     NUMBER OF SEQUENCES: 14
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Robbins, Berliner & Carson
      STREET: 201 N. Figueroa Street, 5th Floor
      CITY: Los Angeles
STATE: California
      COUNTRY: USA
      ZIP: 90012-2628
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US95/00476
      FILING DATE:
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
      NAME: Berliner, Robert
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REGISTRATION NUMBER: 20,121
      REFERENCE/DOCKET NUMBER: 5555-291
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 310-977-1001
      TELEFAX: 310-977-1003
      TELEX:
  INFORMATION FOR SEQ ID NO: 13:
    SEQUENCE CHARACTERISTICS:
     LENGTH: 31 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
PCT-US95-00476-13
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 Query Match
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     121 IFFIILLTIDRYLAIVHAVFAL 142
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RESULT 13
US-08-450-393A-13
; Sequence 13, Application US/08450393A
: Patent No. 5707815
; GENERAL INFORMATION:
    APPLICANT: Charo, Israel
    APPLICANT: Coughlin, Shaun
    TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT TITLE OF INVENTION: PROTEIN RECEPTORS
    NUMBER OF SEQUENCES: 14
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Cooley Godward Castro Huddleson & Tatum
      STREET: 5 Palo Alto Square
      CITY: Palo Alto
STATE: California
      COUNTRY: USA
      ZIP: 94306-2155
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/450,393A
      FILING DATE: May 25, 1995
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: Cserr, Luann
      REGISTRATION NUMBER: 31,822
      REFERENCE/DOCKET NUMBER: UCAL-237/02US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-843-5165
      TELEFAX: 415-8857-0663
      TELEX: 380816CooleyPA
  INFORMATION FOR SEQ ID NO: 13:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 31 amino acids
      TYPE: amino acid
     TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-450-393A-13
                         6.2%; Score 22; DB 1; Length 31;
 Best Local Similarity 100.0%; Pred. No. 1e-13;
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RESULT 8
US-09-239-938-1
; Sequence 1, Application US/09239938
; Patent No. 6329510
; GENERAL INFORMATION:
; APPLICANT: Qin, Shixin
; APPLICANT: Newman, Walter
; APPLICANT: Kassam, Nasim
; APPLICANT: LeukoSite, Inc.
; TITLE OF INVENTION: ANTI-CCR1 ANTIBODIES AND METHODS OF USE
; TITLE OF INVENTION: THEREFOR ; FILE REFERENCE: LKS97-13
; CURRENT APPLICATION NUMBER: US/09/239,938
; CURRENT FILING DATE: 1999-01-29
; NUMBER OF SEQ ID NOS: 1
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
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US-09-239-938-1
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                               0; Mismatches
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Qу
          Db
      115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155
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121 IFFIILLTIDRYLAIVHAVFAL 142

1 IFFIILLTIDRYLAIVHAVFAL 22

Qу

Db

SUMMARIES

Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	308	86.8	355	2	G02436	chemokine (C-C) re
2	41	11.5	355	2	A45177	chemokine (C-C) re
3	33	9.3	355	2	I49339	macrophage inflamm
4	33	9.3	359	2	I49341	MIP-1 alpha recept
5	22	6.2	360	2	JC2443	chemokine (C-C) re
6	22	6.2	374	2	I38450	chemokine (C-C) re
7	16	4.5	383	2	S55594	G protein-coupled
8	14	3.9	352	2	A43113	chemokine (C-C) re
9	12	3.4	356	2	I49340	MIP-1 alpha recept
10	12	3.4	360	2	A57160	chemokine (C-C) re
11	12	3.4	360	2	JC4587	chemokine (C-C) re
12	10	2.8	308	2	I50241	G protein-coupled

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C; Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 13-Aug-1999
C; Accession: I49340
R; Gao, J.L.; Murphy, P.M.
J. Biol. Chem. 270, 17494-17501, 1995
A; Title: Cloning and differential tissue-specific expression of three mouse beta
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chemokine receptor-like genes, including the gene for a functional macrophage inflammatory protein-1 alpha receptor.

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A; Reference number: I49339; MUID: 95340546
A; Accession: I49340
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-356 < RES>
A;Cross-references: EMBL:U28405; NID:g881549; PIDN:AAA89154.1; PID:g881550
C; Superfamily: vertebrate rhodopsin
  Query Match 3.4%; Score 12; DB 2; Length 356; Best Local Similarity 100.0%; Pred. No. 0.00064;
                                0; Mismatches
                                                 0; Indels
                                                                  0: Gaps
                                                                              0:
  Matches 12; Conservative
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Οv
          Db
      140 VFALRARTVTFG 151
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A57160
chemokine (C-C) receptor 4 - human
N; Alternate names: C-C CKR-4
C; Species: Homo sapiens (man)
C;Date: 10-Nov-1995 #sequence revision 10-Nov-1995 #text change 21-Jul-2000
C; Accession: A57160
R; Power, C.A.; Meyer, A.; Nemeth, K.; Bacon, K.B.; Hoogewerf, A.J.; Proudfoot, A.E.I.;
Wells, T.N.C.
J. Biol. Chem. 270, 19495-19500, 1995
A; Title: Molecular cloning and functional expression of a novel CC chemokine receptor
cDNA from a human basophilic cell line.
A; Reference number: A57160; MUID: 95370289
A; Accession: A57160
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: mRNA
A; Residues: 1-360 < POW>
A; Cross-references: GB: X85740; NID: g1370103; PIDN: CAA59743.1; PID: g971452
A; Note: source clone K5-5
C; Genetics:
A; Gene: GDB: CMKBR4
A; Cross-references: GDB:677463
A; Map position: 3p21-3p21
C; Superfamily: vertebrate rhodopsin
C; Keywords: G protein-coupled receptor; glycoprotein; phosphoprotein; transmembrane
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F;76-97/Domain: transmembrane #status predicted <TM2>
F;112-133/Domain: transmembrane #status predicted <TM3>
F;151-175/Domain: transmembrane #status predicted <TM4>
F;208-226/Domain: transmembrane #status predicted <TM5>
F;243-264/Domain: transmembrane #status predicted <TM6>
F;291-308/Domain: transmembrane #status predicted <TM7>
F;29-276,110-187/Disulfide bonds: #status predicted
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F;145/Binding site: phosphate (Ser) (covalent) (by protein kinase C) #status predicted
F;183,194/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;321/Binding site: phosphate (Thr) (covalent) (by protein kinase C) #status predicted
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  Best Local Similarity 100.0%; Pred. No. 0.00065;
  Matches 12; Conservative
                                 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
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Qу
       72 YLLNLAISDLLF 83
          11111111111
Db
       77 YLLNLAISDLLF 88
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SEQ ID NO: 6

Result No.	Score	Query Match	Length	DB	ID	Description
1	343	96.6	355	17	AAW03378	CC-chemokine recep
2	343	96.6	355	19	AAW51746	Human C-C chemokin
3	181	51.0	355	17	AAW03376	CC-chemokine recep
4	181	51.0	355	17	AAW03377	CC-chemokine recep
5	181	51.0	355	18	AAW31850	Human eosinophil e
6	181	51.0	355	18	AAW27124	Human chemokine re
7	181	51.0	355	18	AAW10100	Human C-C chemokin
8	181	51.0	355	19	AAW51745	Human C-C chemokin
9	181	51.0	355	22	ABB56341	Non-endogenous hum
10	181	51.0	355	22	AAG80109	Human CCR3 protein
11	181	51.0	356	18	AAW25943	Human CCKR3 chemok
12	134	37.7	355	19	AAW51744	Human C-C chemokin
13	41	11.5	295	22	AAG80106	Human CCR1 protein
14	41	11.5	355	15	AAR52749	C-C chemokine rece
15	41	11.5	355	18	AAW26588	Human MIP-1 alpha/
16	41	11.5	355	18	AAW25751	Human MIP-1alpha/R
17	41	11.5	355	21	AAB20571	Human CC-chemokine
18	34	9.6	34	22	AAG80053	Chemokine peptide
19	31	8.7	31	16	AAR79170	End of third trans

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RESULT 14
AAR52749
ID
    AAR52749 standard; Protein; 355 AA.
XX
AC
     AAR52749;
XX
DT
     30-JAN-1995 (first entry)
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DΕ
     C-C chemokine receptor.
XX
     C-C CKR-1; cytokine; inflammation.
KW
XX
os
     Homo sapiens.
XX
PN
     WO9411504-A.
xx
PD
     26-MAY-1994.
XX
PF
     04-NOV-1993;
                    93WO-US10672.
xx
PR
     10-NOV-1992;
                    92US-0974025.
XX
PA
     (GETH ) GENENTECH INC.
xx
ΡI
     Horuk R, Neote K, Schall T;
XX
DR
     WPI; 1994-183505/22.
DR
     N-PSDB; AAQ62695.
XX
PT
     New C-C chemokine receptor and nucleic acid - are used to develop
PT
     prods. for use in diagnosis and therapy of inflammation and other
     cytokine-mediated disorders
PT
XX
PS
     Claim 1; Fig 9; 90pp; English.
XX
CC
     The sequence is that of the C-C chemokine receptor. The sequence can
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    be used in therapeutic or diagnostic compsns. for inflammation and
CC
     other cytokine mediated disorders.
CC
     See also AAR52750-2.
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SQ
     Sequence 355 AA;
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11.5%; Score 41; DB 15; Length 355;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e-32;
  Matches 41; Conservative
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      115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155
Qу
          Db
      115 tglyseiffiilltidrylaivhavfalrartvtfgvitsi 155
RESULT 15
AAW26588
     AAW26588 standard; Protein; 355 AA.
xx
AC
    AAW26588;
XX
     21-JAN-1998 (first entry)
DT
XX
     Human MIP-1 alpha/RANTES receptor.
DE
XX
KW
     Macrophage inflammatory protein-1 alpha; MIP-1 alpha;
     reduced upon activation normal T expressed and secreted; RANTES;
KW
KW
     receptor; cytokine; antiinflammatory; inflammation; human.
XX
os
     Homo sapiens.
XX
PN
     US5652133-A.
XX
PD
     29-JUL-1997.
XX
PF
     28-JAN-1993:
                   93US-0012988.
xx
     28-JAN-1993;
                   93US-0012988.
PR
XX
     (USSH ) US DEPT HEALTH & HUMAN SERVICES.
PA
xx
PΙ
     Murphy PM;
XX
DR
     WPI; 1997-392945/36.
DR
     N-PSDB; AAT90384.
xx
рΤ
     MIP-1-alpha and RANTES receptor nucleic acid - used to develop
PT
     products for the detection of these cytokine(s) and their receptors,
PT
     particularly in inflammatory processes
XX
PS
     Claim 2; Column 15-18; 12pp; English.
XX
CC
     This polypeptide comprises a claimed receptor for human macrophage
CC
     inflammatory protein-1 alpha (MIP-1 alpha) and regulated upon
     activation normal T expressed and secreted (RANTES) protein. Also
CC
     claimed are: a nucleic acid (see AAT90384) that encodes the receptor;
CC
CC
     a subsequence of the nucleic acid, having at least 12 contiguous
CC
     nucleotides; a cell transformed or transfected with the nucleic
CC
     acid; and purified MIP-1 alpha/RANTES receptor polypeptide. The
CC
     products can be used for detecting the MIP-1 alpha/RANTES receptor
CC
     and polymorphisms in physiological samples. In addition, the
     receptor can be expressed and used to assay for MIP-la/RANTES in
CC
     biological samples. The quantitation of MIP-1 alpha/RANTES is
CC
     useful for monitoring the levels of these cytokines in a patient.
CC
CC
     Such measurements are useful in following the antiinflammatory
CC
     effects of drugs and prospective usefulness of new antiinflammatory
CC
     agents.
XX
SQ
     Sequence
               355 AA;
                         11.5%; Score 41; DB 18; Length 355; 100.0%; Pred. No. 2.1e-32;
  Query Match
  Best Local Similarity
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Matches 41; Conservative 0; Mismatches 0; Indels

0; Gaps

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Result No.	Score	Query Match	Length	DB	ID	Description
1	181	51.0	355	4	US-08-575-967A-4	Sequence 4, Appli
2	181	51.0	355	4	US-08-847-296B-1	Sequence 1, Appli
3	181	51.0	355	4	US-09-045-583-54	Sequence 54, Appl
4	41	11.5	355	1	US-08-012-988A-2	Sequence 2, Appli
5	41	11.5	355	1	US-08-450-393A-5	Sequence 5, Appli
6	41	11.5	355	4	US-08-446-669-5	Sequence 5, Appli
7	41	11.5	355	4	US-09-045-583-53	Sequence 53, Appl
8	41	11.5	355	4	US-09-239-938-1	Sequence 1, Appli
9	41	11.5	355	5	PCT-US95-00476-5	Sequence 5, Appli
10	31	8.7	31	1	US-08-450-393A-14	Sequence 14, Appl
11	31	8.7	31	4	US-08-446-669-14	Sequence 14, Appl
12	31	8.7	31	5	PCT-US95-00476-14	Sequence 14, Appl
13	22	6.2	31	1	US-08-450-393A-13	Sequence 13, Appl
14	22	6.2	31	4	US-08-446-669-13	Sequence 13, Appl
15	22	6.2	31	5	PCT-US95-00476-13	Sequence 13, Appl
16	22	6.2	344	3	US-08-466-343D-9	Sequence 9, Appli
17	22	6.2	347	1	US-08-461-244-3	Sequence 3, Appli
18	22	6.2	352	3	US-08-466-343D-2	Sequence 2, Appli
19	22	6.2	352	4	US-09-045-583-52	Sequence 52, Appl
20	22	6.2	360	1	US-08-450-393A-4	Sequence 4, Appli

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RESULT 4
US-08-012-988A-2
; Sequence 2, Application US/08012988A
; Patent No. 5652133
; GENERAL INFORMATION:
    APPLICANT: Murphy, Philip M.
TITLE OF INVENTION: Cloning and Expression of Human
    TITLE OF INVENTION: Macrophage Inflammatory Protein-1 alpha (MIP-1
    TITLE OF INVENTION: alpha)/RANTES Receptor
    NUMBER OF SEQUENCES: 2
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Townsend and Townsend Khourie and Crew
      STREET: One Market Plaza, Steuart Tower, Suite 2000
      CITY: San Francisco
      STATE: California
      COUNTRY: USA
      ZIP: 94610
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/012,988A
      FILING DATE: 19930128
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Weber,, Kenneth A.
      REGISTRATION NUMBER: 31,677
      REFERENCE/DOCKET NUMBER: 15280-118
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-543-9600
      TELEFAX: 415-543-5043
  INFORMATION FOR SEQ ID NO: 2:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 355 amino acids
      TYPE: AMINO ACID
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TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-012-988A-2
                         11.5%; Score 41; DB 1; Length 355;
  Best Local Similarity 100.0%; Pred. No. 3.7e-31;
  Matches 41; Conservative 0; Mismatches
                                                0; Indels
                                                              0; Gaps
Qу
      115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155
          Db
      115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155
RESULT 5
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; Sequence 5, Application US/08450393A
; Patent No. 5707815
; GENERAL INFORMATION:
    APPLICANT: Charo, Israel APPLICANT: Coughlin, Shaun
    TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT
    TITLE OF INVENTION: PROTEIN RECEPTORS NUMBER OF SEQUENCES: 14
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Cooley Godward Castro Huddleson & Tatum
      STREET: 5 Palo Alto Square
      CITY: Palo Alto
STATE: California
      COUNTRY: USA
      ZIP: 94306-2155
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/450,393A FILING DATE: May 25, 1995
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: Cserr, Luann
      REGISTRATION NUMBER: 31,822
      REFERENCE/DOCKET NUMBER: UCAL-237/02US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-843-5165
      TELEFAX: 415-8857-0663
      TELEX: 380816CooleyPA
  INFORMATION FOR SEQ ID NO: 5:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 355 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
US-08-450-393A-5
                         11.5%; Score 41; DB 1; Length 355;
  Best Local Similarity 100.0%; Pred. No. 3.7e-31;
 Matches 41; Conservative
                               0; Mismatches
                                                 0; Indels
     115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155
Qу
          Db
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115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155

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RESULT 12
PCT-US95-00476-14
; Sequence 14, Application PC/TUS9500476
; GENERAL INFORMATION:
    APPLICANT: The Regents of the University of California
     TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT
    TITLE OF INVENTION: PROTEIN RECEPTORS
    NUMBER OF SEQUENCES: 14
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Robbins, Berliner & Carson
       STREET: 201 N. Figueroa Street, 5th Floor
      CITY: Los Angeles
STATE: California
      COUNTRY: USA
      ZIP: 90012-2628
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US95/00476
      FILING DATE:
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
     NAME: Berliner, Robert
      REGISTRATION NUMBER: 20,121
      REFERENCE/DOCKET NUMBER: 5555-291
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 310-977-1001
      TELEFAX: 310-977-1003
      TELEX:
  INFORMATION FOR SEQ ID NO: 14:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 31 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
PCT-US95-00476-14
 Query Match 8.7%; Score 31; DB 5; Length 31; Best Local Similarity 100.0%; Pred. No. 1.3e-22;
 Matches 31; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                             0;
     121 IFFIILLTIDRYLAIVHAVFALRARTVTFGV 151
Qу
          Db
       1 IFFIILLTIDRYLAIVHAVFALRARTVTFGV 31
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	Query				
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181	51.0	355	1	CKR3_HUMAN	P51677 homo sapien
64	18.0	355	1	CKR3_MACMU	P56483 macaca mula
55	15.5	355	1	CKR3_CERAE	P56492 cercopithec
41	11.5	355	1	CKR1_HUMAN	P32246 homo sapien
41	11.5	355	1	CKR1_MACMU	P56482 macaca mula
33	9.3	355	1	CKR1_MOUSE	P51675 mus musculu
33	9.3	359	1	CKR3_MOUSE	P51678 mus musculu
29	8.2	358	1	CKR3_CAVPO	Q9z2i3 cavia porce
23	6.5	359	1	CKR3_RAT	O54814 rattus norv
22	6.2	352	1	CKR5_CERAE	P56493 cercopithec
22	6.2	352	1	CKR5_CERTO	O62743 cercocebus
22	6.2	352	1	CKR5_GORGO	P56439 gorilla gor
22	6.2	352	1	CKR5_HYLLE	O97883 hylobates 1
22	6.2	352	1	CKR5_MACMU	P79436 macaca mula
	181 64 55 41 41 33 33 29 23 22 22 22	Query Score Match 181 51.0 64 18.0 55 15.5 41 11.5 41 11.5 33 9.3 33 9.3 29 8.2 23 6.5 22 6.2 22 6.2 22 6.2 22 6.2	Query Score Match Length 181 51.0 355 64 18.0 355 55 15.5 355 41 11.5 355 41 11.5 355 33 9.3 359 29 8.2 358 23 6.5 359 29 8.2 358 23 6.5 359 22 6.2 352 22 6.2 352 22 6.2 352	Query Score Match Length DB 181 51.0 355 1 64 18.0 355 1 55 15.5 355 1 41 11.5 355 1 41 11.5 355 1 33 9.3 355 1 33 9.3 359 1 29 8.2 358 1 29 8.2 358 1 22 6.2 352 1 22 6.2 352 1 22 6.2 352 1	Query Score Match Length DB ID 181 51.0 355 1 CKR3_HUMAN 64 18.0 355 1 CKR3_MACMU 55 15.5 355 1 CKR3_CERAE 41 11.5 355 1 CKR1_HUMAN 41 11.5 355 1 CKR1_MACMU 33 9.3 355 1 CKR1_MOUSE 33 9.3 355 1 CKR3_MOUSE 29 8.2 358 1 CKR3_CAVPO 23 6.5 359 1 CKR3_CAVPO 23 6.5 359 1 CKR3_RAT 22 6.2 352 1 CKR5_CERAE 22 6.2 352 1 CKR5_CERTO 22 6.2 352 1 CKR5_GORGO 22 6.2 352 1 CKR5_GORGO

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RESULT
CKR1_HUMAN
    CKR1_HUMAN
                   STANDARD;
                                  PRT;
                                         355 AA.
ID
AC
    P32246:
    01-OCT-1993 (Rel. 27, Created)
    01-OCT-1993 (Rel. 27, Last sequence update)
DT
    16-OCT-2001 (Rel. 40, Last annotation update)
DT
    C-C chemokine receptor type 1 (C-C CKR-1) (CC-CKR-1) (CCR-1) (CCR1)
DE
DE
     (Macrophage inflammatory protein-1 alpha receptor) (MIP-lalpha-R)
DE
     (RANTES-R) (HM145) (LD78 receptor).
GN
    CCR1 OR CMKBR1 OR CMKR1.
    Homo sapiens (Human).
os
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
ox
    NCBI_TaxID=9606;
RN
    [1]
RP
    SEQUENCE FROM N.A.
    MEDLINE=93161416; PubMed=7679328;
RX
RA
    Neote K., Digregorio D., Mak J.Y., Horuk R., Schall T.J.;
    "Molecular cloning, functional expression, and signaling
RT
RT
    characteristics of a C-C chemokine receptor.";
    Cell 72:415-425(1993).
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RN
    SEQUENCE FROM N.A.
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    MEDLINE=93240122; PubMed=7683036;
    Gao J.-L., Kuhns D., Tiffany H.L., McDermott D., Li X., Francke U.,
RA
RA
    Murphy P.M.;
RT
    "Structure and functional expression of the human macrophage
    inflammatory protein 1 alpha/RANTES receptor.";
RT
    J. Exp. Med. 177:1421-1427(1993).
RL
RN
    [3]
    SEQUENCE FROM N.A.
RP
RC
    TISSUE=Monocytes;
    MEDLINE=94092629; PubMed=7505609;
RX
RA
    Nomura H., Nielsen B.W., Matsushima K.;
    "Molecular cloning of cDNAs encoding a LD78 receptor and putative
RТ
RT
    leukocyte chemotactic peptide receptors.";
RL
    Int. Immunol. 5:1239-1249(1993).
     -!- FUNCTION: RECEPTOR FOR A C-C TYPE CHEMOKINE. BINDS TO MIP-1-ALPHA,
CC
        MIP-1 DELTA, RANTES, AND MCP-3 AND, LESS EFFICIENTLY, TO MIP-1-
CC
CC
        BETA OR MCP-1 AND SUBSEQUENTLY TRANSDUCES A SIGNAL BY INCREASING
CC
        THE INTRACELLULAR CALCIUM IONS LEVEL. RESPONSIBLE FOR AFFECTING
CC
        STEM CELL PROLIFERATION.
CC
    -!- SUBCELLULAR LOCATION: Integral membrane protein.
    -!- TISSUE SPECIFICITY: WIDELY EXPRESSED IN DIFFERENT HEMATOPOIETIC
CC
CC
        CELLS.
    -!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
CC
CC
     ______
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CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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    the European Bioinformatics Institute. There are no restrictions on its
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    use by non-profit institutions as long as its content is in no way
    modified and this statement is not removed. Usage by and for commercial
CC
    entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC
CC
    or send an email to license@isb-sib.ch).
                         _____
CC
    EMBL; L09230; AAA58408.1; -.
DR
    EMBL; L10918; AAA36543.1; -.
DR
    EMBL; D10925; BAA01723.1; -.
DR
    PIR; A45177; A45177.
DR
DR
    GCRDb; GCR_0498; -.
DR
    GCRDb; GCR 0557; -.
DR
    GCRDb; GCR_0573; -.
DR
    MIM; 601159; -.
    InterPro; IPR000276; GPCR Rhodpsn.
DR
DR
    Pfam; PF00001; 7tm_1; 1.
DR
    PRINTS; PR00237; GPCRRHODOPSN.
DR
    PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
    PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
    G-protein coupled receptor; Transmembrane; Glycoprotein.
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     TRANSMEM
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FT
                                   2 (POTENTIAL).
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                  92
FT
                        107
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                 108
                        129
                                   3 (POTENTIAL).
FT
     DOMAIN
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                 130
                        146
FT
FT
     TRANSMEM
                 147
                        171
                                   4 (POTENTIAL).
     DOMAIN
                 172
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FT
                        197
FT
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                 198
                        223
                                   5 (POTENTIAL).
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     DOMAIN
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                                  CYTOPLASMIC (POTENTIAL) .
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FT
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                355 AA; 41172 MW; B2C100FFED275985 CRC64;
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                          11.5%; Score 41; DB 1; Length 355;
  Best Local Similarity 100.0%; Pred. No. 4.2e-31;
           41; Conservative
                                 0; Mismatches
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                                                                  0; Gaps
Qу
      115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155
          Db
      115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155
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ID
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                    STANDARD;
                                    PRT;
                                          359 AA.
AC
     P51678;
DT
     01-OCT-1996 (Rel. 34, Created)
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
DE
     Probable C-C chemokine receptor type 3 (C-C CKR-3) (CC-CKR-3) (CCR-3)
     (CCR3) (CKR3) (Macrophage inflammatory protein-1 alpha receptor-like
DΕ
DE
     2) (MIP-1 alpha RL2).
GN
     CCR3 OR CMKBR3 OR CMKBR1L2.
os
     Mus musculus (Mouse).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX
     NCBI TaxID=10090;
RN
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RP
     SEQUENCE FROM N.A.
RC
     STRAIN=129/SV;
     MEDLINE=96072806; PubMed=7594543;
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RA
     Post T.W., Bozic C.R., Rothenberg M.E., Luster A.D., Gerard N.,
     Gerard C.;
RA
ŘТ
     "Molecular characterization of two murine eosinophil beta chemokine
RT
     receptors.";
RL
     J. Immunol. 155:5299-5305(1995).
RN
     [2]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=129/SVJ;
RX
     MEDLINE=95340546; PubMed=7542241;
RA
     Gao J.-L., Murphy P.M.;
RT
     "Cloning and differential tissue-specific expression of three mouse
RT
     beta chemokine receptor-like genes, including the gene for a
RT
     functional macrophage inflammatory protein-1 alpha receptor.";
     J. Biol. Chem. 270:17494-17501(1995).
RL
CC
     -!- FUNCTION: RECEPTOR FOR A C-C TYPE CHEMOKINE. BINDS TO EOTAXIN,
         MCP-3, MCP-4 AND RANTES AND SUBSEQUENTLY TRANSDUCES A SIGNAL BY
CC
CC
         INCREASING THE INTRACELLULAR CALCIUM IONS LEVEL.
CC
     -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC
    -!- TISSUE SPECIFICITY: DETECTED IN SKELETAL MUSCLE AND IN TRACE
CC
         AMOUNTS IN LEUKOCYTES.
     -!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
```

```
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    the European Bioinformatics Institute. There are no restrictions on its
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    modified and this statement is not removed. Usage by and for commercial
    entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC
CC
    or send an email to license@isb-sib.ch).
CC
DR
    EMBL; U29677; AAA86118.1; -.
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    EMBL; U28406; AAA89155.1; -.
    GCRDb; GCR_1673; -.
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    GCRDb; GCR_1695; -.
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    MGD; MGI:104616; Cmkbr112.
DR
    InterPro; IPR000276; GPCR Rhodpsn.
    Pfam; PF00001; 7tm_1; 1.
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DR
    PRINTS; PR00237; GPCRRHODOPSN.
    PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR
    PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
DR
    G-protein coupled receptor; Transmembrane.
KW
                                EXTRACELLULAR (POTENTIAL).
    DOMAIN
FT
                 1
                       38
FT
    TRANSMEM
                 39
                        64
                                1 (POTENTIAL).
    DOMAIN
                                CYTOPLASMIC (POTENTIAL).
FT
                 65
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                       95
                                2 (POTENTIAL).
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                       111
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FT
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                       133
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FT
FT
    DOMAIN
                176
                       201
                                EXTRACELLULAR (POTENTIAL).
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                202
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                                5 (POTENTIAL).
    DOMAIN
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                       243
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FT
FT
    TRANSMEM
                                6 (POTENTIAL).
                244
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FT
    DOMAIN
                269
                       285
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FT
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                286
                       309
                                7 (POTENTIAL).
                                CYTOPLASMIC (POTENTIAL).
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    DOMAIN
                310
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                110
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FT
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                                BY SIMILARITY.
    CONFLICT
                270
                       270
                                R \rightarrow S (IN REF. 2).
FT
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              359 AA; 41825 MW; AC11ED66E283CEAF CRC64;
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                         9.3%; Score 33; DB 1; Length 359;
 Best Local Similarity 100.0%; Pred. No. 1.6e-23;
 Matches 33; Conservative 0; Mismatches
                                                0: Indels
                                                               0: Gaps
                                                                           0:
Qу
     117 LYSEIFFIILLTIDRYLAIVHAVFALRARTVTF 149
         Db
     121 LYSEIFFIILLTIDRYLAIVHAVFALRARTVTF 153
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CC

Result Query No. Score Match Length DB ID Descri	ption
No. Score Match Length DB ID Descri	ption
1 72 20.3 72 4 Q96T96 Q96t96	homo sapien
2 56 15.8 56 4 Q96T97 Q96t97	homo sapien
3 51 14.4 355 6 Q9BDS8 Q9bds8	macaca fasc
4 41 11.5 355 6 Q9MYJ8 Q9myj8	callithrix
5 35 9.9 355 11 Q91VP9 Q91Vp	9 mus musculu
6 35 9.9 358 6 Q9N0M0 Q9n0m0	ovis aries
7 26 7.3 351 6 Q9MYJ9 Q9myj9	oryctolagus
8 25 7.0 355 11 Q9JLY8 Q9jly	8 rattus norv
9 22 6.2 316 6 Q9TUV7 Q9tuv7	saguinus sp
10 22 6.2 334 6 Q9TUQ7 Q9tuq7	erythrocebu
11 22 6.2 339 6 Q9TQX3 Q9tqx3	mandrillus
12 22 6.2 339 6 Q9TQX2 Q9tqx2	erythrocebu
13 22 6.2 339 6 Q9TQW4 Q9tqw4	pan troglod
14 22 6.2 339 6 Q9TQW2 Q9tqw2	pongo pygma
15 22 6.2 339 6 Q9TQW0 Q9tqw0	hylobates c

16	22	6.2	339	6	Q9TQV6
17	22	6.2	339	6	Q9TQV5
18	22	6.2	339	6	O9TOV3

Q9tqv6 colobus gue Q9tqv5 saguinus sp Q9tqv3 cercopithec

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      16
      22
      6.2
      339
      6
      Q9TQV6
      Q9tqv6 colobus gue

      17
      22
      6.2
      339
      6
      Q9TQV5
      Q9tqv5 saguinus sp

      18
      22
      6.2
      339
      6
      Q9TQV3
      Q9tqv3 cercopithec
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SEQ ID NO: 4

Result No.	Score	% Query Match	Length	DB	ID	Description
1	355	100.0	355	17	AAW03377	CC-chemokine recep
2	355	100.0	355	18	AAW31850	Human eosinophil e
3	355	100.0	355	18	AAW27124	Human chemokine re
4	355	100.0	355	19	AAW51745	Human C-C chemokin
5	355	100.0	355	22	AAG80109	Human CCR3 protein
6	281	79.2	356	18	AAW25943	Human CCKR3 chemok
7	275	77.5	355	17	AAW03376	CC-chemokine recep
8	275	77.5	355	18	AAW10100	Human C-C chemokin
9	254	71.5	355	22	ABB56341	Non-endogenous hum
10	228	64.2	355	19	AAW51744	Human C-C chemokin
11	181	51.0	355	17	AAW03378	CC-chemokine recep
12	181	51.0	355	19	AAW51746	Human C-C chemokin
13	41	11.5	295	22	AAG80106	Human CCR1 protein
14	41	11.5	355	15	AAR52749	C-C chemokine rece
15	41	11.5	355	18	AAW26588	Human MIP-1 alpha/
16	41	11.5	355	18	AAW25751	Human MIP-lalpha/R
17	41	11.5	355	21	AAB20571	Human CC-chemokine
18	34	9.6	34	22	AAG80053	Chemokine peptide
19	32	9.0	32	22	AAG80082	Chemokine CCR3 ext
20	31	8.7	31	16	AAR79170	End of third trans
21	27	7.6	28	20	AAY39255	G-protein coupled
22	26	7.3	28	20	AAY39256	G-protein coupled

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RESULT 14
AAR52749
ID
    AAR52749 standard; Protein; 355 AA.
XX
AC
    AAR52749;
XX
DT
     30-JAN-1995 (first entry)
XX
DE
     C-C chemokine receptor.
XX
     C-C CKR-1; cytokine; inflammation.
KW
xx
os
    Homo sapiens.
XX
PN
     WO9411504-A.
XX
PD
     26-MAY-1994.
XX
PF
     04-NOV-1993;
                   93WO-US10672.
xx
PR
     10-NOV-1992;
                    92US-0974025.
XX
PA
     (GETH ) GENENTECH INC.
XX
PΙ
    Horuk R, Neote K, Schall T;
XX
DR
    WPI; 1994-183505/22.
DR
    N-PSDB; AAQ62695.
XX
PT
    New C-C chemokine receptor and nucleic acid - are used to develop
PT
    prods. for use in diagnosis and therapy of inflammation and other
PT
    cytokine-mediated disorders
XX
PS
    Claim 1; Fig 9; 90pp; English.
XX
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CC
     The sequence is that of the C-C chemokine receptor. The sequence can
     be used in therapeutic or diagnostic compsns. for inflammation and
CC
CC
     other cytokine mediated disorders.
CC
     See also AAR52750-2.
XX
SQ
     Sequence
                355 AA;
  Query Match
                          11.5%; Score 41; DB 15; Length 355;
  Best Local Similarity 100.0%; Pred. No. 1.2e-31;
                                                   0; Indels
           41; Conservative
                                0; Mismatches
      115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155
Qy
          Db
      115 tglyseiffiilltidrylaivhavfalrartvtfgvitsi 155
RESULT 15
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ID
XX
AC
     AAW26588:
XX
DT
     21-JAN-1998 (first entry)
XX
DE
     Human MIP-1 alpha/RANTES receptor.
XX
KW
     Macrophage inflammatory protein-1 alpha; MIP-1 alpha;
KW
     reduced upon activation normal T expressed and secreted; RANTES;
KW
     receptor; cytokine; antiinflammatory; inflammation; human.
xx
os
     Homo sapiens.
\mathbf{x}\mathbf{x}
ΡN
     US5652133-A.
XX
ΡD
     29-JUL-1997.
XX
PF
     28-JAN-1993;
                    93US-0012988.
XX
PR
     28-JAN-1993:
                    93US-0012988.
XX
PA
     (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
ΡI
     Murphy PM;
XX
DR
     WPI; 1997-392945/36.
     N-PSDB; AAT90384.
DR
XX
PT
     MIP-1-alpha and RANTES receptor nucleic acid - used to develop
PT
     products for the detection of these cytokine(s) and their receptors,
PT
     particularly in inflammatory processes
xx
PS
     Claim 2; Column 15-18; 12pp; English.
XX
CC
     This polypeptide comprises a claimed receptor for human macrophage
CC
     inflammatory protein-1 alpha (MIP-1 alpha) and regulated upon
CC
     activation normal T expressed and secreted (RANTES) protein. Also
CC
     claimed are: a nucleic acid (see AAT90384) that encodes the receptor;
CC
     a subsequence of the nucleic acid, having at least 12 contiguous
CC
     nucleotides; a cell transformed or transfected with the nucleic
CC
     acid; and purified MIP-1 alpha/RANTES receptor polypeptide. The
CC
     products can be used for detecting the MIP-1 alpha/RANTES receptor
CC
     and polymorphisms in physiological samples. In addition, the
CC
     receptor can be expressed and used to assay for MIP-la/RANTES in
CC
     biological samples. The quantitation of MIP-1 alpha/RANTES is
CC
     useful for monitoring the levels of these cytokines in a patient.
CC
     Such measurements are useful in following the antiinflammatory
CC
     effects of drugs and prospective usefulness of new antiinflammatory
CC
```

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Sequence 355 AA;
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                        355 4 US-08-575-967A-4
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US-08-012-988A-2
; Sequence 2, Application US/08012988A
; Patent No. 5652133
  GENERAL INFORMATION:
    APPLICANT: Murphy, Philip M.
    TITLE OF INVENTION: Cloning and Expression of Human
    TITLE OF INVENTION: Macrophage Inflammatory Protein-1 alpha (MIP-1
    TITLE OF INVENTION: alpha)/RANTES Receptor NUMBER OF SEQUENCES: 2
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```
CORRESPONDENCE ADDRESS:
 ADDRESSEE: Townsend and Townsend Khourie and Crew
 STREET: One Market Plaza, Steuart Tower, Suite 2000
 CITY: San Francisco
 STATE: California
 COUNTRY: USA
 ZIP: 94610
COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/012,988A
 FILING DATE: 19930128
 CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
 NAME: Weber,, Kenneth A.
 REGISTRATION NUMBER: 31,677
 REFERENCE/DOCKET NUMBER: 15280-118
TELECOMMUNICATION INFORMATION:
 TELEPHONE: 415-543-9600
 TELEFAX: 415-543-5043
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INFORMATION FOR SEQ ID NO: 2:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 355 amino acids
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RESULT 5
US-08-450-393A-5
; Sequence 5, Application US/08450393A
; Patent No. 5707815
; GENERAL INFORMATION:
    APPLICANT: Charo, Israel
APPLICANT: Coughlin, Shaun
    TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT
    TITLE OF INVENTION: PROTEIN RECEPTORS NUMBER OF SEQUENCES: 14
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Cooley Godward Castro Huddleson & Tatum
       STREET: 5 Palo Alto Square
      CITY: Palo Alto
STATE: California
      COUNTRY: USA
      ZIP: 94306-2155
     COMPUTER READABLE FORM:
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      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
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      APPLICATION NUMBER: US/08/450,393A
      FILING DATE: May 25, 1995
      CLASSIFICATION: 424
    ATTORNEY/AGENT INFORMATION:
      NAME: Cserr, Luann
      REGISTRATION NUMBER: 31,822
      REFERENCE/DOCKET NUMBER: UCAL-237/02US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-843-5165
      TELEFAX: 415-8857-0663
      TELEX: 380816CooleyPA
  INFORMATION FOR SEQ ID NO: 5:
    SEQUENCE CHARACTERISTICS:
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      TOPOLOGY: linear
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    ANTI-SENSE: NO
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    TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT TITLE OF INVENTION: PROTEIN RECEPTORS
NUMBER OF SEQUENCES: 14
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Robbins, Berliner & Carson
       STREET: 201 N. Figueroa Street, 5th Floor
      CITY: Los Angeles
       STATE: California
       COUNTRY: USA
      ZIP: 90012-2628
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
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      FILING DATE:
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
      NAME: Berliner, Robert
       REGISTRATION NUMBER: 20,121
      REFERENCE/DOCKET NUMBER: 5555-291
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: 310-977-1001
      TELEFAX: 310-977-1003
      TELEX:
   INFORMATION FOR SEQ ID NO: 5:
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      TOPOLOGY: linear
    MOLECULE TYPE: protein
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
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3	33	9.3	355	2	149339	macrophage inflamm
4	33	9.3	359	2	149341	MIP-1 alpha recept
5	22	6.2	360	2	JC2443	chemokine (C-C) re
6	22	6.2	374	2	I38450	chemokine (C-C) re
7	16	4.5	383	2	S55594	G protein-coupled
8	14	3.9	352	2	A43113	chemokine (C-C) re
9	12	3.4	356	2	I49340	MIP-1 alpha recept
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             2.8
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              2.8
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                                                       G protein-coupled
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20
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C;Date: 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 04-Mar-2000
C; Accession: G02436; A57237
R:Ponath, P.D.
submitted to the EMBL Data Library, February 1996
A; Reference number: H01272
A; Accession: G02436
A; Status: translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-355 < PON>
A;Cross-references: EMBL:U49727; NID:g1477560; PIDN:AAB09726.1; PID:g1477561
R; Combadiere, C.; Ahuja, S.K.; Murphy, P.M.
J. Biol. Chem. 270, 16491-16494, 1995
A; Title: Cloning and functional expression of a human eosinophil CC chemokine receptor.
A; Reference number: A57237; MUID: 95348056
A; Accession: A57237
A; Status: nucleic acid sequence not shown
A; Molecule type: mRNA
A; Residues: 1-106, 'N', 108-275, 'S', 277-280, 'R', 282-355 < COM>
A; Cross-references: GB:U28694; NID:g1199579; PIDN:AAC50469.1; PID:g1199580
A; Note: the translated sequence in GenBank entry HSU28694, release 113.0,
PIDN:AAC50469.1, differs from the published sequence in having 281-Leu
C; Genetics:
A; Gene: GDB: CMKBR3
A;Cross-references: GDB:579624; OMIM:601268
A; Map position: 3p21-3p21
C; Superfamily: vertebrate rhodopsin
C; Keywords: G protein-coupled receptor; glycoprotein; phosphoprotein; transmembrane
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F;36-60/Domain: transmembrane #status predicted <TM1>
F;71-91/Domain: transmembrane #status predicted <TM2>
F;108-129/Domain: transmembrane #status predicted <TM3>
F;147-171/Domain: transmembrane #status predicted <TM4>
F;205-223/Domain: transmembrane #status predicted <TM5>
F;240-261/Domain: transmembrane #status predicted <TM6>
F;288-305/Domain: transmembrane #status predicted <TM7>
F;24-273,106-183/Disulfide bonds: #status predicted
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Qу
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chemokine (C-C) receptor 1 - human
N; Alternate names: C-C CKR-1; macrophage inflammatory protein-1-alpha receptor
C; Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 13-Aug-1999
C; Accession: A45177; I55671
R; Neote, K.; DiGregorio, D.; Mak, J.Y.; Horuk, R.; Schall, T.J.
Cell 72, 415-425, 1993
A; Title: Molecular cloning, functional expression, and signaling characteristics of a C-C
chemokine receptor.
A; Reference number: A45177; MUID: 93161416
A; Accession: A45177
A:Status: nucleic acid sequence not shown
A; Molecule type: mRNA
A; Residues: 1-355 < NEO>
A;Cross-references: GB:L10918; NID:g292416; PIDN:AAA36543.1; PID:g292417
A; Experimental source: HL60 cells
A; Note: sequence extracted from NCBI backbone (NCBIP:124876)
R; Gao, J.
J. Exp. Med. 177, 1421-1427, 1993
A; Title: Structure and functional expression of the human macrophage inflammatory 1 alpha
(MIP-lalpha) / RANTES receptor.
A; Reference number: I55671; MUID: 93240122
A; Accession: I55671
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Residues: 1-355 < RES>
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A;Gene: GDB:CMKBR1; CMKR-1
A; Cross-references: GDB:138446; OMIM:601159
A; Map position: 3p21-3p21
C; Superfamily: vertebrate rhodopsin
C; Keywords: disulfide bond; G protein-coupled receptor; glycoprotein; phosphoprotein;
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F;205-223/Domain: transmembrane #status predicted <TM5>
F;240-264/Domain: transmembrane #status predicted <TM6>
F;288-305/Domain: transmembrane #status predicted <TM7>
F;5/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;24-273,106-183/Disulfide bonds: #status predicted
F;345/Binding site: phosphate (Ser) (covalent) (by casein kinase II) #status predicted
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         Db
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macrophage inflammatory protein-1 alpha receptor - mouse
C; Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 13-Aug-1999
C; Accession: I49339
R; Gao, J.L.; Murphy, P.M.
J. Biol. Chem. 270, 17494-17501, 1995
A; Title: Cloning and differential tissue-specific expression of three mouse beta
chemokine receptor-like genes, including the gene for a functional macrophage
inflammatory protein-1 alpha receptor.
A; Reference number: 149339; MUID: 95340546
A; Accession: I49339
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-355 < RES>
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          Db
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N; Alternate names: C-C CKR-2; monocyte chemoattractant protein 1 receptor; monocyte
chemotactin 1 receptor
C; Species: Homo sapiens (man)
C;Date: 21-Feb-1995 #sequence revision 05-Apr-1995 #text change 20-Jun-2000
C; Accession: JC2443; I38463
R; Yamagami, S.; Tokuda, Y.; Ishii, K.; Tanaka, H.; Endo, N.
Biochem. Biophys. Res. Commun. 202, 1156-1162, 1994
A; Title: cDNA cloning and functional expression of a human monocyte chemoattractant
protein 1 receptor.
A; Reference number: JC2443; MUID: 94324942
A; Accession: JC2443
A; Molecule type: mRNA
A; Residues: 1-360 < YAM>
A;Cross-references: DDBJ:D29984; NID:g531246; PIDN:BAA06253.1; PID:g531247
R; Charo, I.F.; Myers, S.J.; Herman, A.; Franci, C.; Connolly, A.J.; Coughlin, S.R.
Proc. Natl. Acad. Sci. U.S.A. 91, 2752-2756, 1994
A; Title: Molecular cloning and functional expression of two monocyte chemoattractant
protein 1 receptors reveals alternate splicing of the carboxyl-terminal tails.
A; Reference number: A53477; MUID: 94195821
A; Accession: I38463
A; Status: preliminary
A; Molecule type: mRNA
A: Residues: 1-360 < RES>
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A; Cross-references: GDB:337364; OMIM:601267
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C; Keywords: alternative splicing; G protein-coupled receptor; glycoprotein; transmembrane
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C; Species: Homo sapiens (man)
C;Date: 16-Feb-1996 #sequence revision 16-Feb-1996 #text change 13-Aug-1999
C;Accession: I38450
R; Charo, I.F.; Myers, S.J.; Herman, A.; Franci, C.; Connolly, A.J.; Coughlin, S.R.
Proc. Natl. Acad. Sci. U.S.A. 91, 2752-2756, 1994
A; Title: Molecular cloning and functional expression of two monocyte chemoattractant
protein 1 receptors reveals alternate splicing of the carboxyl-terminal tails.
A; Reference number: A53477; MUID: 94195821
A; Accession: I38450
A; Status: preliminary
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A; Map position: 3p21-3p21
C; Superfamily: vertebrate rhodopsin
C; Keywords: alternative splicing; G protein-coupled receptor; glycoprotein; transmembrane
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F;292-309/Domain: transmembrane #status predicted <TM7>
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DT
DT
     01-OCT-1993 (Rel. 27, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
     C-C chemokine receptor type 1 (C-C CKR-1) (CC-CKR-1) (CCR-1) (CCR1)
DE
DE
     (Macrophage inflammatory protein-1 alpha receptor) (MIP-1alpha-R)
     (RANTES-R) (HM145) (LD78 receptor).
DE
GN
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     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
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RΡ
     MEDLINE=93161416; PubMed=7679328;
RX
     Neote K., Digregorio D., Mak J.Y., Horuk R., Schall T.J.;
RΑ
     "Molecular cloning, functional expression, and signaling
RT
RT
     characteristics of a C-C chemokine receptor.";
     Cell 72:415-425(1993).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
     MEDLINE=93240122; PubMed=7683036;
RX
     Gao J.-L., Kuhns D., Tiffany H.L., McDermott D., Li X., Francke U.,
RA
RT
     "Structure and functional expression of the human macrophage
RT
     inflammatory protein 1 alpha/RANTES receptor.";
     J. Exp. Med. 177:1421-1427(1993).
RL
RN
     [3]
     SEQUENCE FROM N.A.
RP
ВC
     TISSUE=Monocytes;
     MEDLINE=94092629; PubMed=7505609;
RA
     Nomura H., Nielsen B.W., Matsushima K.;
     "Molecular cloning of cDNAs encoding a LD78 receptor and putative
RT
RT
     leukocyte chemotactic peptide receptors.";
RL
     Int. Immunol. 5:1239-1249(1993).
CC
     -!- FUNCTION: RECEPTOR FOR A C-C TYPE CHEMOKINE. BINDS TO MIP-1-ALPHA,
CC
         MIP-1 DELTA, RANTES, AND MCP-3 AND, LESS EFFICIENTLY, TO MIP-1-
         BETA OR MCP-1 AND SUBSEQUENTLY TRANSDUCES A SIGNAL BY INCREASING
CC
CC
         THE INTRACELLULAR CALCIUM IONS LEVEL. RESPONSIBLE FOR AFFECTING
CC
         STEM CELL PROLIFERATION.
CC
     -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC
     -!- TISSUE SPECIFICITY: WIDELY EXPRESSED IN DIFFERENT HEMATOPOIETIC
CC
         CELLS.
CC
     -!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
CC
CC
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CC
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     or send an email to license@isb-sib.ch).
CC
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     EMBL; L10918; AAA36543.1; -.
DR
     EMBL; D10925; BAA01723.1; -.
DR
     PIR; A45177; A45177.
DR
DR
     GCRDb; GCR_0498; -.
     GCRDb; GCR 0557; -.
DR
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DR
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     DOMAIN
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                        129
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                 130
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FT
     TRANSMEM
                                   4 (POTENTIAL).
                 147
                        171
FT
     DOMAIN
                 172
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FT
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FT
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      115 TGLYSEIFFIILLTIDRYLAIVHAVFALRARTVTFGVITSI 155
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AC
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     01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
DT
DT
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
DE
     C-C chemokine receptor type 1 (C-C CKR-1) (CC-CKR-1) (CCR-1) (CCR1)
DΕ
     (Macrophage inflammatory protein-1 alpha receptor) (MIP-1alpha-R)
DE
     (RANTES-R).
GN
     CCR1 OR CMKBR1.
os
     Mus musculus (Mouse).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC.
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ox
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RP
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RC
     STRAIN=129/SV; TISSUE=Peritoneal macrophage;
RX
     MEDLINE=96072806; PubMed=7594543;
RA
     Post T.W., Bozic C.R., Rothenberg M.E., Luster A.D., Gerard N.,
RA
     Gerard C.;
     "Molecular characterization of two murine eosinophil beta chemokine
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RT
    receptors.";
    J. Immunol. 155:5299-5305(1995).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
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RC
RX
    MEDLINE=95340546; PubMed=7542241;
RA
     Gao J.-L., Murphy P.M.;
RT
     "Cloning and differential tissue-specific expression of three mouse
    beta chemokine receptor-like genes, including the gene for a
RT
RT
     functional macrophage inflammatory protein-1 alpha receptor.";
RL
     J. Biol. Chem. 270:17494-17501(1995).
     -!- FUNCTION: RECEPTOR FOR A C-C TYPE CHEMOKINE. BINDS TO MIP-1-ALPHA,
CC
CC
         RANTES, AND LESS EFFICIENTLY, TO MIP-1-BETA OR MCP-1 AND
CC
         SUBSEQUENTLY TRANSDUCES A SIGNAL BY INCREASING THE INTRACELLULAR
CC
        CALCIUM IONS LEVEL. RESPONSIBLE FOR AFFECTING STEM CELL
CC
        PROLIFERATION.
CC
     -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC
     -!- TISSUE SPECIFICITY: DETECTED IN THE HEART, SPLEEN, LUNG,
        PERITONEAL EXUDATE CELLS AND LEUKOCYTES.
CC
     -!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
CC
CC
     ______
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    or send an email to license@isb-sib.ch).
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DR
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    InterPro; IPR000276; GPCR Rhodpsn.
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    Pfam; PF00001; 7tm 1; 1.
DR
    PRINTS; PR00237; GPCRRHODOPSN.
DR
    PROSITE; PS00237; G PROTEIN RECEP F1 1; 1.
DR
DR
    PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
    G-protein coupled receptor; Transmembrane.
KW
FT
    DOMAIN
                                EXTRACELLULAR (POTENTIAL).
                 1
                      34
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FT
                 35
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                                 1 (POTENTIAL).
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    DOMAIN
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                240
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FT
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                       355
                                 CYTOPLASMIC (POTENTIAL).
FT
    DISULFID
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FT
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116 GLYSEIFFIILLTIDRYLAIVHAVFALRARTVT 148